VolvoTech.EU MANUAL

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Applicable to	Volvo C70 (2006-2014) with CRA
Contents	Manual describes functions and setup of CRE

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CRE USER MANUAL FOR C70

Applicable to:

CRE (VolvoTech's Canbus Rooftop Extender)

User manual for daily use and configuration/setup.

Pre requirements for this document to be useful:

- A basic working CRE in your Volvo C70 (at least one function should work)
- No known errors or failures in the electronics of your Volvo.

Need to know:

- Obviously we try to put as much information in a manual as we can. Sometimes things are "normal" and "of base logic" to us, which might not be for you, simply because you are not installing electronics in your Volvo on a daily base, and we are. Please in cases where we seem to miss out on information in a manual; think logically, measure power and/or contact us!
- In case you might have any questions, please email us at support@volvotech.eu
- There is technically NO difference for LHD cars or RHD cars.
- Note that (as you agreed upon while ordering) VolvoTech will NOT take any responsibility for the use of the CRE in your Volvo. Explicitly any changes to the CRE's factory settings will void any possible option to address responsibility to VolvoTech.
- Use the CRE with common sense. Functions like opening the roof while driving are there for your convenience but require you to handle with CARE and common sense!
- **To avoid wrong dealer diagnostics please DISABLE the unit (option 1) if you visit the Volvo dealer!**

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Functions overview

Please find here the functions available for the CRE

#	Description	Setting 0	Setting 1	Setting 2	Setting 3	Setting 4
1	CRE on or off	OFF	ON	ON, no indicators		
2	Inside open/close button one-touch	Volvo default	One touch	One touch even with ignition off		
3	Keyfob functions	Volvo default	Keyfob functions enabled	Keyfob functions enabled AND allow change of ignition position while rooftop is moving		
4	Maximum speed for rooftop operation	Volvo default	Up to 10 km/h (app 7mph)	Up to 20 km/h (app 13mph)	Up to 30 km/h (app 19mph)	Up to 40 km/h (app 25mph)
5	Window comfort closing	Volvo default	One touch close			
6	Door comfort unlock	Volvo default	Unlock doors if a door is opened from inside	Unlock doors if ignition is turned off (position 0)		
7	Passenger mirror comfort angling	Volvo default	Mirror comfort angling enabled.			

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Functions explained

Please find here in more detail the description of the CRE functions

1 - Main Switch

The CRE can quickly and easily be enabled and disabled using this function. It acts like a master switch. When disabled, the module becomes completely inactive and behaves as if it was not installed.

Setting 0 disables the entire module while keeping all other function settings intact. This allows turning the module off and back on without the need to reconfigure all of the other user configurable settings.

Setting 1 enables the CRE

Setting 2 enables the CRE but disables the indicator lights while operating the CRE with the keyfob (NOT ADVISED!)

2- Inside open/close one-touch operation

When enabled, the center console switch operation is enhanced as follows:
Setting 0 Default Volvo behaviour (i.e. switch pressed to activate and continue any operation of the rooftop)

Setting 1 Just hit the Open switch shortly will open the roof, hit close will close the roof (without having to put the foot on the brake etc)
Hit the same button once more will interrupt the operation (emergeny stop), press again to continue.

Setting 2 Will allow the same as with setting 1, but additionally will allow you to remove the key from the ignition while the rooftop is in motion.
(Please take VERY good care about personal injuries with use of this function!)

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3 – KeyFob functions

This function allows rooftop operation with the original key fob by tapping the "OPEN" or "CLOSE" button on the remote.

Tapping any button on the remote will interrupt the operation immediately.

As long as the rooftop is in motion, the hazard lights in the mirrors will flash as indication (unless disabled by function 1).

Setting 0 No keyfob support

Setting 1 Keyfob support activated:

Hold down UNLOCK on the remote to open all windows (Volvo original feature).
Tap UNLOCK on the remote 3x (in 1 sec intervals) to open the top.
Tap LOCK on the remote 3x (in 1 sec intervals) to close the top.
Tap LOCK on the remote twice to close all windows.

Setting 2 Keyfob support activated with additional support for starting your C70 and doorlock while the rooftop is in motion.
(Please take VERY good care about personal injuries with use of this function!)

4 – Maximum rooftop operation at driving speed

Setting 0 Rooftop operation only allowed at complete stand-still (Suggested!)

Setting 1-3 Rooftop operation allowed at chosen speed.
(Please note: Once the rooftop is started within the programmed speed limit, it will continue opening or closing, even if the speed later exceeds the limit during the top operation! We strongly advise not to use this function, and IF you want to use it to operate it with FULL awareness!! Again, we do NOT take any liability for damages, direct or indirect due to use of the CRE!!)

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5 – Comfort window operation

function allows to program the driver's door "all-windows" switch to raise all windows using One-Touch. By factory this switch only does One-Touch down.

Setting 0 Function is disabled, Volvo factory operation is active.

Setting 1 Windows comfort closing is enabled
Pulling the "window-up" button, automatically closes the windows.

6 – Comfort door lock

This function can be set to automatically unlock the door locks when either the key is pulled from the ignition or when the ignition is turned off.

This removes the requirement to pull the door handles twice to get out of the car.

Setting 0 Function is disabled

Setting 1 Activates the function the moment the key is removed from the ignition.

Setting 2 Activates the function the moment the ignition position is set to 0 (coming from position 2, accessories position)

7 – Mirror comfort angling

This function requires seat/mirror memory. (most C70's will have that function!).

Setting 0 Function is disabled

Setting 1 Function is enabled
The passenger side mirror can be programmed to automatically turn downwards (giving the driver a better ground-view at the side of the C70 for easy parking) if the C70 is put into reverse gear.

The mirror will automatically turn back to its original (= stored) position after 10 seconds of inactivity (no car movement), forward speed higher than 5km/h.

The module uses memory position 1 and 3 of the driver seat to store the active normal driving positions and the reverse position of the mirror.

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Using that memory for normal seat/mirror position storage will make the function behave erratically.

How to change settings

Please find here the details on how to change the settings in the CRE

Changing settings (programming) is done by using several buttons and indicators inside your C70.

- Rooftop switch (4)
  Rooftop open -> next option / next value in an option
  Rooftop close -> previous option / previous value in an option

- Door unlock button (1)

- Left (2) and right (3) turn indicator lights in the DIM (Driver information panel)
  Left arrow lights -> shows selected option (1-7) with blinks (count)
  Right arrow lights -> shows selected option's value with blinks (count)

Select programming mode:
Turn ignition to position 2
Push and hold the doorlock button (1) until the left arrow blinks once
Now you can use the Rooftop switch (4) to select a option to be changed.
Remember ; you are in option 1 already now!

Change an option's value:
Start programming mode first (see above)
Select option to be changed with Rooftop switch (1)
Wait until the right indicator has shown the current value (count blinks)
Then use the Rooftop switch (1) again to change value to what you require
(You will see the right indicator light confirming your switch presses!)

Closing programming mode / storing settings:
Option values are effective directly after they are changed.
Programming will end automatically if there's no key press received within 30secs.
Programming can be ended manually by pressing the door unlock switch once.

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